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EXAMINER
STERRETT, JONATHAN G

ART UNIT	PAPER NUMBER
3623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/619,944	WILSON ET AL.
	Examiner	Art Unit	
	Jonathan G. Sterrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 January 2007</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12, 14, 16-26, 28-36, 38 and 39</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12,14,16-26,28-36,38 and 39</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This **Final Office Action** is responsive to the amendment filed 8 January 2007.

Currently **Claims 1-12, 14, 16-26, 28-36, 38 and 39** are pending.

Response to Arguments

2.   The applicant's arguments regarding **Claims 1-12, 14, 16, 17 and 30-36** have

been fully considered but they are not persuasive.

3.   The applicant argues with respect to Claims 18-26 on page 10, that these claims

are not indefinite. The applicant attempts to support this argument by quoting parts of

the specification.

        The examiner respectfully disagrees.

        In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e. "mobile technicians may be dispatched via a mobile technician interface" and "a

frame order management system may be used to direct technicians to work on

equipment") are not recited in the rejected claim(s). Although the claims are interpreted

in light of the specification, limitations from the specification are not read into the claims.

See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

        The language in the specification regarding these limitations is exemplary, and

not definitive per being set out in the specification with "clarity, deliberateness or

precision" (see discussion below regarding the requirements of setting forth definitions in the specification that impact the claims).

Thus, these definitions are given their "broadest reasonable interpretation".

The preamble of Claim 18 clearly sets forth a "dispatch control system". A definition of what control means is given by Websters Collegiate Dictionary 10th Edition "a device or mechanism that used to regulate or guide the operation of a machine, apparatus or system". The operative words used in Webster's are "guide" or "regulate". Looking at the rest of the claim language, none of the subsequent limitations provides for this functionality. The other functional limitations are a "monitoring system", a "status reporting interface", "monitoring module" and "monitoring system", "completion data", various system interfaces (none of which functionally and positively recite any limitations that provide "control", i.e. regulating or guiding).

Monitoring and providing a status report are not control. Monitoring is defined, again by Webster's, as "one that monitors or is used in monitoring: as a CRT for display of computer information or a device used in monitoring a condition or function".

For example, if a website is used for "monitoring" and "providing a status report" as to package tracking, e.g. UPS, FedEx, then this does not provide for "control". A person can track a package as per "monitoring" and receiving a status of that package (i.e. a status reporting interface) without being able to do anything about controlling the package, thus monitoring and status do not in any way equate to control.

Thus, the claim is in fact indefinite because while the preamble cites a "control system", the body of the claims do not set forth functionality such that any control is provided and functionally recited.

4.   The applicant argues with respect to Claim 1 on page 11 that the combination of Weigel and Bogart fails to teach the claimed limitation of using a "current location" of the service technician in assigning a request to that technician.

The examiner respectfully disagrees.

The applicant provides no definition of what "current" means in the specification with the required "clarity, deliberateness or precision"[1]. Therefor, the examiner turns to the Merriam-Webster's Collegiate Dictionary 10th Edition for a definition as to what "current" means[2].

Webster's defines "current" as "most recent". Since Weigel teaches using the location of the technician that is "most recent" in assigning routes, i.e. based on their currently assigned geographic location (see page 119 col 1 line 31-38), i.e. their starting point is the "current location". Additionally Webster's defines "current" as "generally accepted, used, practiced or prevalent at the moment". Since the seed point and starting point of the technician's location is used in scheduling routes and stops, and

[1] "The patentee's lexicography must, of course, appear 'with reasonable clarity, deliberateness, and precision' before it can affect the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249, 48 USPQ2d 1117, 1121 (Fed. Cir. 1998) citing *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994).
[2] "It is well settled that dictionaries provide evidence of a claim term's ordinary meaning. Such dictionaries include dictionaries of the English language, which in most cases will provide the proper definitions and usages, and technical dictionaries, encyclopedias and treatises, which may be used for established specialized meanings in particular fields of art." *Inverness Medical v. Biomeditech Co.*, 309 F.3d 1365, 1369, 64 USPQ2d 1926, 1930 (Fed. Cir. 2002) (citations and quotations omitted).

these locations are the "generally accepted, used and practiced" at the time of the

scheduling, then Weigel meets the claimed limitation of assigning based on a "current"

location.

5.   The application argues on page 12 with respect to Claims 1-12, 14, 16 and 17

that there is no motivation to combined the cited references of Weigel and Bogart.

The Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re

Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Weigel teaches

in column 1 line 9-13, that a technician's skill in repairing or installing appliances must

be taken into account in scheduling technicians for their stops. Weigel further teaches

that providing a certain amount of time (i.e. Weigel refers to a "window") is used in

scheduling how long a repair stop is to require (see page 116 column 2 line 20-25,

implicit in the teaching regarding meeting time windows for a stop is that the technician

should not work at that location longer than the time window, implying that their

performance statistic, i.e., the time they take to make a service call, does not violate the

time window for that stop).

Bogart notes that assigning calls is based on a technician's (i.e. a call center agent) demonstrated proficiency (i.e. the average time it takes for them to answer calls). Bogart further notes (column 3 line 20-25) that by taking the technician's performance into account helps improve the scheduling of work with respect to the technician, because it takes into account the improvements the technician (i.e. the agent) makes in the long term in improving proficiency in their job. Bogart teaches that short term variations in performance are also accounted for (i.e. the agent or technician having a bad day). The motivation to combine is realized in accounting for real changes in near and long term performance variations as reflected in the technician's performance statistic. This would improve accuracy in scheduling by taking into account how well a person is demonstrably performing their job.

6.   The application argues on page 12 with respect to Claims 1-12, 14, 16 and 17 that there is no reasonable expectation of success to combine the cited references of Weigel and Bogart.

The Examiner respectfully disagrees.

As noted above, there is a motivation to combine Bogart with Weigel because Bogart teaches that taking into account a person's (i.e. an agent, technician) historical performance statistic improves the accuracy of scheduling because it takes into account how well a person has been doing their job. The reasonable expectation of success is that improving the scheduling approach of Weigel would be realized because Weigel teaches that there are time windows that a technician must perform according to, thus

incorporating Bogart's teachings into Weigel would improve the accuracy of the

scheduling by providing an indication of whether an agent could meet the time window,

based on how they had performed in terms of handling tasks in the past. There is a

reasonable expectation of success that the improved scheduling would occur because a

particular technician who was quick in performing service calls could be scheduled with

performing more service calls, thus improving the efficiency of the system, because it

was based on their historical performance statistic, i.e. the average time it took them to

perform a task.

Whether or not Weigel is a batch-based system or Bogart and Weigel are

technically compatible, as alleged, is irrelevant, because the teachings contained in

Bogart regarding using a person's historical performance statistic in assigning them

work or scheduling work for them are fully applicable to Weigel's batch system and

could be incorporated into Weigel's system. The teachings relied upon in Bogart and

their application within Weigel have absolutely nothing to do with whether one system is

a real time processing system and whether another uses batch processing – these

aspects are Weigel and Bogart are irrelevant to what the teaching is suggesting

regarding taking into account a person's historical performance statistic. In fact, if the

method were being practiced on a blackboard, the teaching would still be relevant.

Furthermore, it would not be technically incompatible to measure a technician's

previous day's or previous week's performance statistic to use in scheduling their next

day's performance. This is true especially since Weigel is already taking into account a

scheduling window (i.e. a time based constraint) that must be met to schedule a

technician for that slot. As pointed out in previous office actions, nothing in the claims requires real-time scheduling.

7.   On page 14, the applicant alleges that the examiner has engaged in impermissible hindsight.

The examiner respectfully disagrees.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

8.   On page 14, the applicant argues that the combination of Weigel and Bogart fails to teach the limitations of Claim 2.

The examiner respectfully disagrees.

The claim cites a "current position" indicated by a global positioning system.

With regards to the term "current position", the examiner states that Weigel teaches a "current position" as can be understood applying a broadest reasonable

interpretation[3] as is discussed above to the term "current", since absent a definition set

out in the specification with "clarity, deliberateness and precision", the examiner again

applies the definitions from Webster's regarding the term "current position".

Similarly, the examiner applies the broadest reasonable interpretation as to what

a "global positioning system" is. The examiner notes that the claims do not say "GPS"

or "Global Positioning System" or even "the GPS" or "the global positioning system",

which are understood in the art to be the satellite-based GPS, but rather "a global

positioning system". Weigel teaches a GIS system (i.e. a Geographic Information

System) that relies on maps and street addresses to indicate particular addresses and

routes. This GIS provides input to the routing and scheduling system to provide a seed

point (i.e. a starting point and "a current location" as discussed above, per definition) for

use in scheduling and arranging routes. Since the routes and places as provided by

Weigel's ArcView system provide unique addresses that provide a global reference (e.g.

the addresses provided by the GIS system are understood to be globally unique) to

those addresses, then the examiner maintains that the GIS system provides for global

positioning. The ArcView System utilized by Weigel's invention is a system in that it is

a software package that runs on a computer. Thus, since it provides a "current location"

and provides for a "global position" of the technician and is a system (i.e. software

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[3] [T]he Board is *required* to use a different standard for construing claims than that used by district courts. We have held that it is *error for the Board to apply the mode of claim interpretation that is used by courts in litigation*, when interpreting the claims of issued patents in connection with determinations of infringement and validity. Instead, as we explained above, the PTO is obligated to give claims their *broadest reasonable interpretation* during examination. [Emphasis added.]" *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004).

application running on a computer with a processor and memory), it meets the claimed limitations.

9.   The applicant's attempt to traverse the Official Notice taken with respect to a CLEC accessing a service request status interface, as per Claim 5.

The examiner notes that the applicant has not provided adequate information or argument so that *on its face* it creates a reasonable doubt regarding the circumstances justifying Official Notice. Therefor, the presentation of a reference to substantiate the Official Notice is not deemed necessary. The examiner's taking of Official Notice has been maintained.

The examiner notes that the Official Notice has support in the following document:

Utilities go wireless: Anywhere, anytime--wireless technologies improve efficiency for employees and customers
Charles V Maglione. **Electric Perspectives**. Washington: May/Jun 2001.Vol.26, Iss. 3; pg. 86, 9 pgs

10.   The applicant argues that the terms used in Claim 6 are "functional" because they are described in the specification as such.

The examiner disagrees.

Whether or not the terms are used in the specification is irrelevant, insofar as their requiring functional connection structurally to other claim limitations. The differences between the data labels used to describe system elements are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be

performed the same regardless of the specific data. Further, the structural elements

remain the same regardless of the specific data. Thus, this descriptive material will not

distinguish the claimed invention from the prior art in terms of patentability, *see In re*

Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32

F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP ϶ 2106.

11.   The applicant argues on pages 15 and 16 with respect to Claim 18 and Norand.

       However, this statement (i.e. repeating a lengthy claim limitation verbatim) is not

compliant with 37 CFR 1.111(b) because is amounts to a general allegation that the

claim defines a patentable invention without specifically pointing out how the language

of the claim patentably distinguishes them from the references.

12.   The applicant argues that Norand fails to teach the limitation of "both" the frame

order completion data and service order completion data.

       The examiner respectfully disagrees.

       The engineer's handheld interface, as taught by Norand, shows when an

engineer throws a switch, the COSMOS system (i.e. the frame order system) would also

have to show that the switch was thrown in order for the service order to be shown as

complete, since the work orders (i.e. service orders) are downloaded into COSMOS

first. So unless "both" the engineer's handheld and COSMOS shows the frame order

and service order information as complete, then the overall order would not be shown

as complete.

13.   The applicant alleges patentability for Claims 25, 26, 28, 29, 38 and 39 by

reciting limitations of those claims.

       However, these statement are not compliant with 37 CFR 1.111(b) because they

amount to a general allegation that the claims define a patentable invention without

specifically pointing out how the language of the claims patentably distinguishes them

from the references.

Claim Rejections - 35 USC § 112

14.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15.   Claims 18-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Claim 18 is diagrammed below).
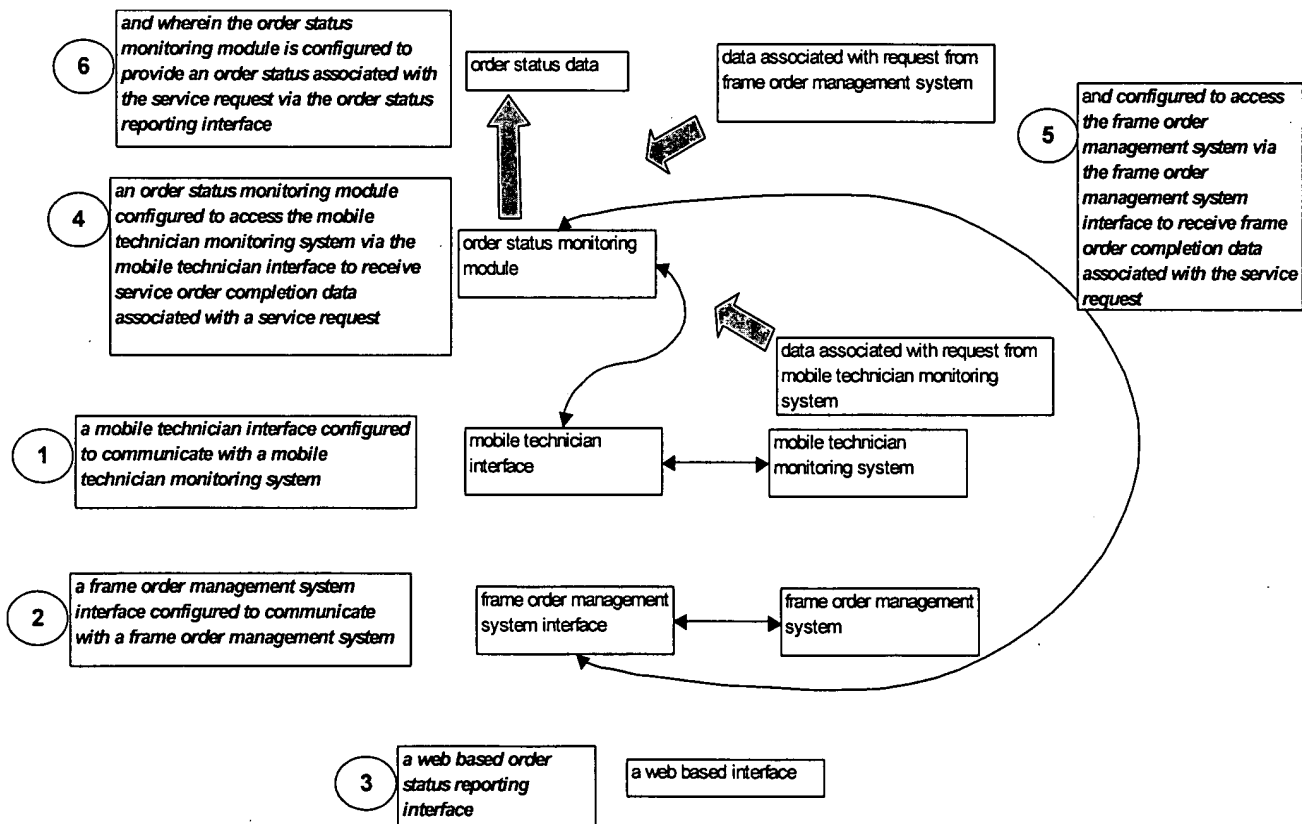
Regarding **Claim 18**, the claim cites a "dispatch control system", however, none of the limitations in the body of the claim functionally provide for controlling dispatching. Additionally, other elements of the claim are cited which do not add functionality to the

claim. For example, a frame order management system is cited, but there is no claimed management of "frame orders", as it relates to dispatch control. Similarly, a mobile technician monitoring system is cited, however, there are no limitations that functionally provide for monitoring a technician. Also a web-based order status reporting interface is cited, however it is not functionally connected to any of the other cited elements. The claim is indefinite, because (1) it is not clear that the limitations provide for controlling dispatch and (2) the elements cited do not provide the functionality necessary to provide for controlling dispatching.

Claims 19-29 depend on Claim 18, and are therefore indefinite for at least the reason that Claim 18 is indefinite.

Regarding Claim 38, the limitations recite receiving frame order completion data, however, this completion data is not functionally connected to the service order completion data. Additionally the order status provided via a web interface is not functionally connected to the other two recitations of data exchange (i.e. service order completion data and frame order completion data). The claim is indefinite, because (1) it is not clear that the limitations provide for monitoring order status and (2) the elements cited do not provide the functionality necessary to provide for monitoring order status.

Claim 39 depends on Claim 38, and is therefore indefinite for at least the reason that Claim 38 is indefinite

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

17. **Claims 1-12, 14, 16, 17 and 30-36** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Weigel** in view of **Bogart US 6,163,607 (hereinafter Bogart).**

Weigel, Don; Cao, Buyang; "Applying GIS and OR Techniques to Solve Sears

Technician-Dispatching and Home Delivery Problems", Jan/Feb 1999, Interfaces, 29, 1,

ABI/INFORM Global, p.112.

Regarding **Claim 1**, Weigel teaches:

a service request interface configured to communicate with a service

request system;

Page 113 paragraph 3 line 15-16, customers call in to communicate with the

service request system.

Page 114 column 2 line 13-14, the EHDS/CARS interfaces with the mainframe to

receive service orders.

a dispatch system interface configured to communicate with a dispatch

system; and

Page 114 column 2 line 15-17, system uploads dispatching information, i.e. through a dispatch system interface configured to communicate with a dispatch system.

a service assignment module configured to assign a service request to a technician from a pool of available technicians based on their skills and abilities and <u>a current location of the technician</u>

Page 116 column 1 line 20-26, the system (i.e. service assignment module) assigns service requests to technicians from a pool based on their skills and abilities to provide repair, i.e. their primary and secondary skills.

Page 118 column 2 para 1, 2, the GIS system utilizes the starting point of the technician each day as an input for the scheduling of a technician (i.e. their "current" location where the examiner is considering current to be defined by Webster's as "generally accepted, used, practiced or prevalent at the moment" where at the moment the scheduling occurs the "current" location of the technician is taken to be the beginning point of their route.

the service request received via the service request interface,

Page 114 column 2 line 13-14, the EHDS/CARS interfaces with the mainframe to receive service orders

the service assignment module notifying the technician of the service request via the dispatch system interface.

Column 2 line 15-18, system has eliminated dispatchers from communicating with local workforce, thus the system notifies the technicians directly from the dispatch system interface.

Page 115 Figure at top of page – the technician is automatically provided with service manifests, directions and maps, i.e. notified of the service request through this interface.

wherein the historical technician performance statistic includes an average tavel time to reach a service location associated with a service order and where service times at service locations are tracked.

Page 116 column 1 line 26-29, average travel time is average completion time of a task associated with the service request since traveling to the location requiring service is a task associated with the service request.

Page 116 column 2 line 19-20 total service time is tracked for service calls (note transit time is tracked as a separate entity).

Weigel does not teach:

Assigning a technician based at least in part on a historical technician performance statistic;

Bogart teaches:

Assigning a technician based at least in part on a historical technician performance statistic.

Column 3 line 20-25, technicians historical performance is used to assign calls – see also column 5 line 36-40, call assignment is based on this historical performance.

Weigel and Bogart both address providing workforce scheduling, thus both

Weigel and Bogart are analogous art.

Bogart teaches that scheduling an employee based on their historical

performance helps maximize the performance of an organization by taking the individual

performance level of the employees into account (column 3 line 6-10).   Bogart further

teaches that using a weighted average takes historical performance into account, but

places a greater weight on performance that is more recent, to take into account

improvements in performance the technician may experience over time.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Weigel, regarding providing a service technician

scheduling system, to include the step of basing scheduling at least in part on historical

employee performance, as taught by Bogart, because it would maximize the

performance of an organization by taking the individual performance level of the

employees into account.

Regarding **Claim 2**, Weigel teaches:

a geo-location interface configured to access a <u>global positioning</u> system,

the <u>global positioning</u> system indicating <u>the current</u> location of the technician

and

page 119 column 1 line 31-35, the system accesses a GIS system to indicate

location of a centroid (seed point) that indicates a location of the technician. The

ArcView GIS system also provides a current location of the definition where the

examiner is using "current" as defined above, i.e. the starting point of the route for a

technician is their "current" location, since it is the location in practice or use by the GIS

(i.e. the GPS system). The GIS provides for global positioning in determining an

address for the starting point of the technician in scheduling routes since this address is

unique (i.e. refers to a unique point on a map) and is understood as such globally.

The examiner notes that the claims cite a global positioning system (i.e. not a

GPS system).

Regarding **Claim 3**, Weigel teaches:

**a service request status interface for accessing status data associated with
the service request.**

Column 2 line 13-19, the system provides online reports (i.e. through a service

request status interface). These reports provide status data associated with the service

request including various times, e.g. start and total service time.

Regarding **Claim 4**, Weigel teaches an online service request status interface, as

per above in Claim 3, but does not teach:

wherein the service request status interface is a web-based interface, as per Claim 4 or **wherein the service request status interface is accessible to a competitive local exchange carrier**, as per Claim 5.

However, Official Notice is taken that it is old and well known in the art for interfaces, including status request interfaces, to be web-based, as per Claim 4 and accessible to a local utility (i.e. accessible to a CLEC). Providing web-based status interfaces (as per Claim 4) including those accessible to a CLEC, as per Claim 5, enable a local utility to access status inquiries flexibly from a variety of locations since they are accessing the interface through the internet and further provide for a status update on work orders.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Weigel, regarding providing a service technician scheduling system and online status reporting, to include the step of providing a web-based status interfaces (as per Claim 4) including those accessible through a dial-up connection (i.e. to a CLEC as per Claim 5) because it would provide a company who had dispatched field technicians to perform service orders with flexibility in accessing a service request status since they are accessing the interface through the internet and would provide the company with status information regarding work orders.

Regarding **Claim 6**, Weigel teaches:

a system interface configured to access a operation management system,

Page 114 column 2 line 13-15, Sears mainframes interfaces with the

CARS/EHDS system (i.e. the operation management system since it manages both

delivery and service requests).

the service assignment module configured to transfer service requests to

the operation management system via the system interface.

Page 114 column 2 line 13-15, and Figure 2, page 115, CARS/EHDS receive

service requests from the mainframe through the system interface.

Note the use of the term "frame" and "frame related" above comprise non-

functional, descriptive language.

Also, it would have been obvious to adopt the above service system to a frame

system to provide frame related service requests since it is old and well known in the art

the frame systems require service and service requests.

Regarding **Claim 7**, Weigel does not teach:

a scoring interface configured to access a technician scoring system, the

technician scoring system storing an efficiency scoring associated with the

technician.

Bogart teaches:

a scoring interface configured to access a technician scoring system, the technician scoring system storing an efficiency scoring associated with the technician

Column 2 line 25-30, the system (i.e. a scoring interface) stores scoring information (i.e. an efficiency) based on the employee's (i.e. technician's) performance during the last call-see also column 4 line 55-60.

Weigel and Bogart both address providing workforce scheduling, thus both Weigel and Bogart are analogous art.

Bogart teaches that scheduling an employee based on their historical performance helps maximize the performance of an organization by taking the individual performance level of the employees into account (column 3 line 6-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Weigel, regarding providing a service technician scheduling system, to include the step of storing an employee's efficiency scoring, as taught by Bogart, because it would maximize the performance of an organization by taking the individual performance level of the employees into account.

Regarding **Claim 8**, Weigel teaches:

a statistical knowledge interface configured to access a statistical

knowledge system, the statistical knowledge system storing statistical data

associated with the service request.

Page 116 column 1 line 11-15 & 26, the assignment rules module accesses the

system to store statistical information associated with the service request. In this case

the statistical data is average travel time.

Regarding **Claim 9**, Weigel teaches tracking the number of completed service

calls (i.e. requests), page 127 Table 2 "Completed Calls".

Weigel does not teach:

a billing system interface configured to communicate with a billing system,

the billing system to receive completion data associated with the service request.

Official Notice is taken that it is old and well known in the art that Sears has a

billing system to ensure customers are billed for the fulfillment of their service request.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Weigel, regarding tracking the completion of service

requests to include interfacing said completion data with a billing system to ensure that

customers are billed upon the completion of service requests.

Regarding **Claim 10**, Weigel teaches:

a user interface to provide data associated with the technician.

Page 116 column 1 line 11-14, the assignment module allows entry of data associated with the technician to be entered and customized (i.e. thus a user interface).

Regarding **Claim 11**, Weigel teaches:

wherein the user interface is a web enabled interface.

Page 128 Column 2 line 18-25, the user interface used in assigning service requests, is also included in a web-based (i.e. web-enabled) application.

Regarding **Claim 12**, Weigel teaches the web enabled interface as per Claim 11 above, but does not teach:

wherein the user interface includes a JAVA component.

However, Official Notice is taken that it is old and well known in the art for a web application for an interface to include a Java component. The java language provides a way to easily and robustly incorporate various functionalities into a web browser.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Weigel and Bogart, regarding providing service dispatch capability and a web-based user interface, to include the step of wherein the

user interface includes a Java component, because it provides an easy and robust way

to incorporate various functionalities into a web browser.

Claims 14, 16, 17 and 30-36 recite similar limitations as those recited in **Claims**

1-12 above, and are therefore rejected under the same rationale.

12.   **Claims 18-26, 28, 29, 38 and 39** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Norand**'s mobile wireless Pen*key computer product offering

(hereinafter **Norand**).

Norand is contained in the following references:

Norand.com webpage of 2-6-98, "NyNex utilizes Pen*Key® mobile computers to

retrieve information and execute transfer activity", pp.1-4, retrieved from the internet:

web.archive.org/web/19990206125452/www.norand.com/case_nynex_more.html,

hereinafter **Reference A**).

Norand.com webpage of 2-6-98, "Norand – Field Service", pp.1-2, retrieved from

the internet:

web.archive.org/web/19990206122627/www.norand.com/sol_fieldservice_tech.html,

hereinafter **Reference B**).

Norand.com webpage of 2-6-98, "Are you getting ready to catch the wireless

wave", pp.1-8, retrieved from the internet:

web.archive.org/web/19990206122343/www.norand.com/wp_wirelesswave.html,

hereinafter **Reference C**).

Norand.com webpage of 2-6-98, "Introducing the Norand RapidREP™ Solution

from Intermec Technologies Corporation", pp.1-3, retrieved from the internet:

19990206114807/www.norand.com/pr_rapidrep.html, hereinafter **Reference D**).

The above references are from Norand's website, all archived on February 6,

1998. Norand provided mobile computers that were configured using a variety of

software and hardware configurations for a variety of field uses. In each case, users

entered data that was recorded by the mobile laptop to wirelessly connect the user to a

network from the field. Norand's mobile laptop also provided instructions to the mobile

user depending on the situation and particular application.

While it is not clear or readily apparent that the disclosed functionalities were

available in one packaged service or offering, these references clearly show that

Norand, as a whole, made these functionalities available. These functionalities were all

designed to provide information to a user working in the field, so that information was

available at their fingertips –this automation was necessary to improve their productivity

and make their jobs easier. Therefore, the examiner submits that it would have been

obvious to one of ordinary skill in the art of mobile wireless computing to offer any

permutation of these functionalities to meet a mobile user's needs, thereby improving

their productivity and making their tasks in the field easier. Therefore, it would have

been obvious to combine the following limitations separately, as taught by the Norand

references as laid out below.

Regarding **Claim 18**, Norand teaches:

a mobile technician interface configured to communicate with a mobile

technician monitoring system;

Reference A page 2 para 4, 6; the technician has a mobile interface to

communicate with the monitoring system (i.e. the system receiving the technician's

commands from the mobile Norand computer). The examiner notes that the terms

"mobile technician monitoring" are non-functional descriptive material because they do

not structurally affect the remainder of the claim.

a frame order management system interface configured to communicate

with a frame order management system;

Reference A page 2 para 4, the mobile technician's interface is configured to

communicate with a management system through an interface (i.e. Starmem – see also

page 3 para 2 & page 2 para 2, Starmem is an interface the communicates with the

Loop Assignment control system.

a web based order status reporting interface; and

Reference D page 2 para 1, web-based applications that support operations,

Reference B page 1 para 2, when a job (i.e. a service order) is complete, a

button is pressed to begin the billing cycle (i.e. since the job is complete, i.e. the service

order status, the customer is billed).

an order status monitoring module configured to access the mobile

technician monitoring system via the mobile technician interface to receive

service order completion data associated with a service request

Reference A page 2 para 1 & 6, a module receives data from the technician's

mobile computer – this data is associated with a request. The technician sending a

request to through a switch as part of an order is completion data associated with a

service request.

and configured to access the frame order management system via the

frame order management system interface to receive frame order completion data

associated with the service request,

Reference A page 2 para 1 & 2, the server accesses the switch to receive

completion data that the switch has been thrown – see also page 2 para 2, the data

stored by COSMOS is frame order completion.

and wherein the order status monitoring module is configured to provide

an order status associated with the service request via the order status reporting

interface.

Reference A page 1 para 3, the records (i.e. including the orders for switch

processing in page 2 para 1) are updated, i.e. provide an order status.

Regarding **Claim 19**, Norand teaches completing a service order as discussed

above. Norand teaches a order status monitoring module, service order completion

data and frame order completion data, as discussed above.

wherein the order status monitoring module reports a complete status

associated with the service request upon receipt of both the service order

completion data and the frame order completion data.

Reference A page 2 para 6, the module reports a complete status when the user

touches the 'throw' button.

Regarding **Claim 20**, Norand teaches:

an internal service management interface configured to communicate with

an internal service management system,

Reference A page 2 para 2, outside plant engineer enters work orders through

an interface into the system.

and wherein the order status monitoring module is configured to access

the internal service management system to receive the internal service

completion data.

Reference A page 2 para 2, the system (COSMOS) stores the service

completion data.

Regarding **Claim 21**, Norand teaches:

a service order request interface configured to communicate with a service

order request system; and

Reference A page 2 para 2, the entering of orders into COSMOS (i.e. a request

interface communicating with a request system, i.e. COSMOS).

an order dispatch module configured to access the service order request system to receive the service request.

Reference B page 2 para 2, dispatchers assign calls through assigning the service order request to technician's in the field. – see also page 1 para 2, the dispatching of service orders to the field is automated, i.e. through a dispatch module.

Regarding **Claim 22**, Norand teaches:

a user interface configured to provide configurable views of data associated with the mobile technician monitoring system, the frame order management system, and the order status monitoring module.

Reference A page 3 para 1 & page 2 para 6, a backlit display provides for a configurable view of data associated with the systems and monitoring module discussed above. The views that allow a user to identify a switch and through it on the Norand display also provide for configurable views of data associated with the systems and module, as the switch data is associated with these systems and module.

Regarding **Claim 23**, Norand teaches:

wherein the user interface includes a web-enabled interface.

Reference D page 2 para 1, web-based applications (i.e. interfaces) that support operations are part of the Norand offering.

Regarding **Claim 24**, Norand teaches providing a user interface that runs on a portable PC that is running windows (Ref C page 6 para 3) and that is providing the latest wireless internet applicatiosn (Ref C page 2 para 1). Norand does teach where the user interface includes a JAVA interface component.

However, Official Notice is taken that it is old and well known in the art of internet computing to use interfaces that utilize object oriented programming methods, including using JAVA components.

JAVA components are a known, reliable way to provide an interface that accesses the internet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Norand, regarding providing for wireless PC connectivity to the internet, to include the step of where the user interface includes a JAVA component, because it would provide a reliable way to interface the internet.

Regarding **Claim 25**, Norand teaches:

An inventory provisioning interface configured to access a public switch telephone network inventory system.

Reference D page 6 para 3, the handheld (i.e. interface) is configured to provide access to an ERP system. The examiner notes that the terms "inventory provisioning" and "public switch telephone network" are non functional descriptive material and do not patentably distinguish the invention of the Norand references.

Regarding **Claim 26**, Norand teaches:

Wherein the order status reporting interface is configured to provide

access to a competitive local exchange carrier.

Reference A page 2 para 2, 3, the mobile computer (i.e. interface) can access a

carrier (i.e. the central office switch) see also para 6, the interface can access the

carrier to throw switches. The examiner notes that the terms "order status reporting"

and "competitive local exchange" are non functional descriptive material and do not

patentably distinguish the invention of the Norand references.

Claims 28, 29, 38 and 39 recite similar limitations to those addressed by the

rejection of **Claims 18-26** above and are therefore rejected under the same rationale.

Conclusion

18.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

**Bell Atlantic Software Systems Introduces Alex(R)Plus -- the Next
Generation of Telecommunications Management Software**
Smith, Leslie. PR Newswire. New York: May 07, 1992. Sec. 1. pg. 1

Automated information systems: The key to trucking intelligence
Stephen Bennett. Transport Topics. Alexandria: Jan 13, 2003., Iss. 3519; pg. S4, 5 pgs

On the edge of geolocation

Joshua Israelsohn. **EDN**. Boston: Mar 7, 2002.Vol.47, Iss. 5; pg. 35, 5 pgs

Wireless, remotely updated digital mapping system benefits ⊙ Southwest Gas

Craig Astler. **Pipeline & Gas Journal**. Dallas: Jul 2002.Vol.229, Iss. 7; pg. 106, 2 pgs

New dispatch software is a hot ticket

Russell A Carter. **Rock Products**. Chicago: Jul 1997.Vol.100, Iss. 7; pg. 44, 4 pgs

Trucking in real time

Richard Shulman. **Supermarket Business**. New York: Feb 1999.Vol.54, Iss. 2; pg. 14, 5 pgs

Intelligent dispatching rules for trip-based material handling systems

Bozer, Yavuz A, *Yen, Chih-kuan*. **Journal of Manufacturing Systems**. Dearborn: 1996.Vol.15, Iss. 4; pg. 226, 14 pgs

US 6,578,005 by Lesaint teaches a system for dispatching for a local telephone company (assignee is British Telecom), where the location of the technician and their service history is important (a copy is provided with this office action – note the highlighted sections).

19.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

20.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-

272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JGS 3-19-2007

C. MICHELLE TARAE
PRIMARY EXAMINER